

1-38. (CANCELED)

39. (NEW) A device for raising or cultivating cells in a container-like receptacle (1) which comprises

a base; and

at least one lid,

wherein the at least one upper lid (3) is connected to the receptacle (1) in a pressure-tight manner, and the receptacle (1) or the upper lid (3) is provided with at least one inlet bore (8) for one of the introduction and withdrawal of culture medium and oxygen.

40. (NEW) The device as claimed in claim 39, wherein a cells (7) can be raised or cultivated directly or indirectly in or under the upper lid (3) and on a base (23, 35, 44) or a lower lid (12).

41. (NEW) The device as claimed in claim 39, wherein the receptacle (1) is provided on the base with a tray (10) into which the cells (7) can be placed.

42. (NEW) The device as claimed in claim 39, wherein the receptacle (1) has a cylindrical middle part closed off at both ends by the upper lid (3) and the lower lid (12) which forms the base of the receptacle (1).

43. (NEW) The device as claim in claim 39, wherein the upper or lower lid or lids (3, 12), respectively, and the receptacle (1) are connected to one another by a threaded connection (2, 4).

44. (NEW) The device as claimed in claim 39, wherein the upper or lower lid or lids (3, 12), respectively, are each provided with the inlet bore (8) and an outlet bore (9).

45. (NEW) The device as claimed in claim 42, wherein both upper and lower lids (3, 12), respectively, are provided in each case with at least one bore, the at least one inlet bore (8) being arranged in one upper lid (3), and the at least one outlet bore (9) being arranged in the lower lid (12).

46. (NEW) The device as claimed in claim 43, wherein the threaded connection between the upper lid (3) and the receptacle (1) is formed by an internal thread (2') in the receptacle (1) and by an interacting external thread (4') in at least one of the upper or lower lid or lids (3, 12), respectively.

47. (NEW) The device as claimed in claim 43, wherein the threaded connection is formed by an internal thread (2') in the upper or lower lid or lids (3, 12), respectively, and by an external thread (4') in the receptacle (1).

48. (NEW) The device as claimed in claim 43, wherein the threaded connection is provided with at least one sealing ring (5).

49. (NEW) The device as claimed in claim 39, wherein the receptacle (1) is designed as a cylindrical middle part, both ends of the middle part being closed off respectively by the upper lid (3) and the lower lid (12), both lids (3, 12) being provided in each case with an extension ring (14), which extension rings (14) at least partially enclose the cylindrical middle part sealingly from the outside.

50. (NEW) The device as claimed in claim 49, wherein the extension rings (14) each seal off the middle part from the outside via a clamp connection.

51. (NEW) The device as claimed in claim 49, wherein the extension rings (14) each seal off the middle part from the outside via a threaded connection.

52. (NEW) The device as claimed in claim 39, wherein the receptacle (1) and the at least one upper lid (3) is provided on both sides with a tensioning ring (15) for introducing rolling or turning movements for the receptacle (1) and the at least one upper lid (3).

53. (NEW) The device as claimed in claim 39, wherein a pressurizing means (17) for the receptacle (1) is connected to the inlet bore (8).

54. (NEW) The device as claimed in claim 53, wherein the pressurizing means (17) is designed as a cylinder/piston unit.

55. (NEW) The device as claimed in claim 54, wherein the inlet bore (8) opening into a piston space (18) of the cylinder/piston unit (17) is provided with a check valve (19).

56. (NEW) The device as claimed in claim 53, wherein the pressurizing means (17) can subject the interior of the receptacle (1) with the cells (7) to alternating pressure loads.

57. (NEW) The device as claimed in claim 39, wherein the at least one upper lid (3) of the receptacle (1) is provided with a suspension means (21) on which a platform (22) for receiving the cells (7) is arranged.

58. (NEW) The device as claimed in claim 57, wherein the suspension means (21) is formed by rods which extend from the upper lid (3) into the interior of the receptacle (1) and at whose lower end the platform (22) is arranged.

59. (NEW) The device as claimed in claim 58, wherein the platform (22) is connected to the rods (21) in a detachable manner.

60. (NEW) The device as claimed in claim 59, wherein the platform (22) can be connected to the rods (21) by a clip connection.

61. (NEW) The device as claimed in claim 57, wherein the receptacle (1) has a cylindrical middle part which is closed at both ends by an upper lid (3) and a lower lid (12), the suspension means (21) with the platform (22) being arranged on the upper lid (3).

62. (NEW) The device as claimed in claim 57, wherein the receptacle (1) is provided as a two-chamber system for raising or cultivating two cell cultures (7, 7').

63. (NEW) The device as claimed in claim 39, wherein a magnetizable pressure disk (25) is arranged in the receptacle (1) and can be moved by a magnetizing means (24) in order to exert pressure internally on the cells (7).

64. (NEW) The device as claimed in claim 63, wherein the pressure disk (25) is provided with holes (26).

65. (NEW) The device as claimed in claim 63, wherein the pressure disk (25) has a grid or mesh structure.

66. (NEW) The device as claimed in claim 63, wherein the cells (7) are arranged on a support structure (27a) which is acted upon by the pressure disk (25) from one or both sides.

67. (NEW) The device as claimed in claim 39, wherein the receptacle (1) is provided with expandable elements (28) for exerting pressure internally on the cells (7).

68. (NEW) The device as claimed in claim 39, wherein, for exerting pressure internally, a hydraulic or pneumatic means (30) with a movable film, plate or membrane (31) is arranged in the receptacle (1).

69. (NEW) The device as claimed in claim 39, wherein the cells (7) are arranged in a gel (32).

70. (NEW) The device as claimed in claim 39, wherein the receptacle (1) is formed by an upper lid (3) and a lower lid (12), with sealing rings (33, 34) being provided for sealing between the two lids (3, 12).

71. (NEW) The device as claimed in claim 39, wherein the base (23) of the receptacle (1) is formed by a gas-permeable membrane (35).

72. (NEW) The device as claimed in claim 71, wherein the gas-permeable membrane (35) is covered by a sealing structure (39).

73. (NEW) The device as claimed in claim 39, wherein at least part of the inside walls of the receptacle (1) is provided with a peel-off film (40).

74. (NEW) The device as claimed in claim 39, wherein the receptacle (1) is designed as a multi-chamber system (chambers 41, 42, 43).

75. (NEW) The device as claimed in claim 74, wherein a porous support (44) is arranged between the second chamber (42) and the third chamber (43).

76. (NEW) The device as claimed in claim 74, wherein, in the first chamber (41), a culture medium can be introduced in a first step, and a gaseous medium can be introduced in a second step.